

CLAIMS

What is Claimed is:

1. A bicycle wheel having spokes (4) disposed and connected between a hub collar (2) projected in a centrifugal direction on the outer circumference of each end of a hub (1) and a rim (3), wherein a hub collar surface (6) is disposed approximately parallel with the spokes at an elevation angle (5) caused by the spokes disposed between the hub collar and the rim, hub holes (9) one of which for inserting a hub nipple (8) comprising a circular body (7) is provided in said each hub collar surface extending through approximately at a right angle to said elevation angle, the outer peripheral surface of a hub nipple (19) is formed into an approximately same shape capable of being mounted on the inner peripheral surface of the hub hole (9), spoke insert holes (12) for inserting the spokes are bored in the outer peripheral surface of the hub collar into the inner peripheral surface of the hub holes, peripheral restraint walls (13) opposed with said spoke insert holes interposed are stood upright on the outer peripheral surface of the hub collar, one end of the spokes having external threads (15) on both ends thereof and being inserted from the spoke insert hole side is threadedly fastened with internal threads (16) provided in the hub nipple fitted into the hub hole, and the external threads on the other end of the spokes are threadedly fastened to the rim nipple having the internal threads mounted from the inside of the rim into the spoke holes formed in the rim to connect the hub and the rim.
2. A bicycle wheel having a rim and a hub connected by spokes as claimed in claim 1, wherein in place of the constitution in which the spoke insert holes for inserting the spokes into the outer circumference surface of the hub collar are bored into the hub hole, and peripheral restraint walls opposed with the spoke insert holes interposed are stood upright, there is provided a constitution wherein the spoke insert holes for inserting the spokes into the outer circumference surface of the hub collar are disposed in two rows to left and right and bored into the hub hole, and 3-row

peripheral restraint walls opposed with the spoke insert holes in 2-row to left and right interposed are stood upright.

3. A bicycle wheel having a rim and a hub connected by spokes as claimed in claim 1 or 2, wherein the rim is that a ratio of a rim height (22) with respect to a rim width (21) is not less than one time, the rim height is not less than 20 mm, and the number of spoke holes formed in the rim is the number comprising a multiple of 4.

4. A bicycle wheel having a rim and a hub connected by spokes as claimed in any of claims 1 to 3, wherein the external threads on both ends of the spokes are that the length thereof is set so that the length of the external threads on the other end are longer than that of the external threads on one end, the short external threads and the long external threads are threadedly fastened to the hub nipple and the rim nipple, respectively, to apply tension between the hub and the rim by the spoke for connection.

5. A bicycle wheel having a rim and a hub connected by spokes as claimed in any of claims 1 to 4, wherein the hub collar surface (6) is formed approximately parallel with the elevation angle of 2 to 10° .

6. A bicycle wheel having a rim and a hub connected by spokes as claimed in any of claims 1 to 5, wherein the inner peripheral surface of the hub hole is formed to be circular which is approximately the same diameter as that of the hub nipple comprising a circular body, and the spoke insert holes bored into the inner peripheral surface of the hub hole formed in the outer peripheral surface of the hub collar is formed into a slit (20).

7. A bicycle wheel having a rim and a hub connected by spokes as claimed in any of claims 1 to 6, wherein the length of the circular body of the hub nipple is the same as or somewhat shorter than or longer than the thickness of the collar width (23) of the hub collar, and the external threads formed on one end of the spokes are threadedly fastened to the internal threads for connecting spokes provided in the hub nipple extending therethrough or not extending therethrough.

8. A bicycle wheel having a rim and a hub connected by spokes as

claimed in any of claims 1 to 7, wherein the spokes are fitted into the hub holes opened approximately at a right angle to the elevation angle, are threadedly fastened to the circular body of the hub nipple shaped to be rotatable in the direction of a plane angle (24), and are stretched while being applied with tension without being bent between the hub collar and the rim.

9. A bicycle wheel having a rim and a hub connected by spokes as claimed in any of claims 1 to 8, wherein the spoke threaded hole (26) of the hub nipple is opened in the center of the circular body or to be displaced on the end side from the center.